Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Information Systems Agency

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7:

PE 0303131K I Minimum Essential Emergency Communications Network (MEECN)

Date: February 2018

Operational Systems Development

Appropriation/Budget Activity

COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	153.865	12.316	15.855	17.579	-	17.579	17.383	17.715	18.017	18.458	Continuing	Continuing
T64: Special Projects	70.985	0.000	5.481	5.481	-	5.481	5.558	5.564	5.562	5.673	Continuing	Continuing
T70: Strategic C3 Support	82.880	12.316	10.374	12.098	-	12.098	11.825	12.151	12.455	12.785	Continuing	Continuing

#### A. Mission Description and Budget Item Justification

Minimum Essential Emergency Communications Network (MEECN) provides the Nuclear Command, Control, and Communications (NC3) Engineer with plans and procedures, systems analysis, operational assessments, systems engineering, and development of concepts of operation and architectures. The NC3 System provides connectivity from the President and the Secretary of Defense through the National Military Command System to nuclear execution forces integral to fighting a "homeland-to-homeland," as well as theater nuclear war. MEECN includes the Emergency Action Message dissemination systems and those systems used for integrated Tactical Warning/Attack Assessment, presidential decision-making conferencing, force report back, re-targeting, force management, and requests for permission to use nuclear weapons. Efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense, military forces, and an informed decision-making linkage between the President, the Secretary of Defense, and the Combatant Commands. MEECN ensures our national leadership has proper command and control of our forces during times of national emergency, up to and including nuclear war.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	12.206	15.855	15.883	-	15.883
Current President's Budget	12.316	15.855	17.579	-	17.579
Total Adjustments	0.110	0.000	1.696	-	1.696
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-	-			
Other Adjustments	0.110	-	1.696	-	1.696

### **Change Summary Explanation**

The increase of +\$1.696 in FY 2019 will fund Polo Hat theater and Paul Revere operational assessments of the National Leadership Command Capabilities (NLCC). Additional information is classified and provided under separate cover.

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2019 E	Defense Info	rmation Sy	stems Ager	ncy				<b>Date:</b> Febr	uary 2018	
Appropriation/Budget Activity 0400 / 7					PE 030313	31K I Minim	t (Number/ um Essentia cations Netv	al ,		umber/Nan ial Projects	,	
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
T64: Special Projects	70.985	0.000	5.481	5.481	-	5.481	5.558	5.564	5.562	5.673	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

The mission is performing classified work. All aspects of this project are classified and require special access. Detailed information on this project is not contained in this document.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Special Projects	0.000	5.481	5.481
Description: Program is classified and exhibit will be provided under a separate cover.			
FY 2018 Plans: Program is classified and exhibit will be provided under a separate cover.			
FY 2019 Plans: Program is classified and exhibit will be provided under a separate cover.			
FY 2018 to FY 2019 Increase/Decrease Statement:  Program is classified and exhibit will be provided under a separate cover.			
Accomplishments/Planned Programs Subtotals	0.000	5.481	5.481

## C. Other Program Funding Summary (\$ in Millions)

N/A

#### Remarks

## D. Acquisition Strategy

Program is classified and exhibit will be provided under a separate cover.

### E. Performance Metrics

Program is classified and exhibit will be provided under a separate cover.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Information Sy	Date: February 2018		
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303131K I Minimum Essential Emergency Communications Network (MEECN)		umber/Name) cial Projects

Support (\$ in Millions	s)			FY 2	2017	FY 2	2018		2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
System Engineering & Intergration	C/CPFF	Verizon : Arlington, VA	70.985	0.000	Oct 2016	5.481	Oct 2017	5.481	Oct 2018	-		5.481	Continuing	Continuing	-
		Subtotal	70.985	0.000		5.481		5.481		-		5.481	Continuing	Continuing	N/A
			Drior					EV.	2010	EV.	2040	EV 2010	Cost To	Total	Target

	Prior Years	FY 2	017	FY 2	2018	FY 2 Ba	2019 se	FY 2019 OCO	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	70.985	0.000		5.481		5.481		-	5.481	Continuing	Continuing	N/A

Remarks

Appropriation/Budget Activity 1400 / 7										Project (Number/Name) T64 / Special Projects																
		FY 2017			FY 201		_		FY 2019			FY 2020					2021		FY 2022		_	FY 20				
			3	4 '	1 ∣ '	2   3	4	1	2	3 4	.   1	l 2	3	4	1	2	3 4	∣ 1		2 3	4	∣ 1	2	3	4	
	1	2	9		•		•			•				-	-										_	
Classified	1		<u> </u>		-   -	_   0								•	-											

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Defense Information System	ns Agency		Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 7	PE 0303131K / Minimum Essential	T64 / Spec	cial Projects
	Emergency Communications Network		
	(MEECN)		

# Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Classified					
Classified	1	2017	4	2023	

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2019 D	Defense Info	rmation Sy	stems Ager	ісу				Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 7					PE 030313	ram Element (Number/Name) 31K / Minimum Essential cy Communications Network  Project (Number/Name) T70 / Strategic C3 Support						
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
T70: Strategic C3 Support	82.880	12.316	10.374	12.098	-	12.098	11.825	12.151	12.455	12.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

This project supports the mission of the Nuclear Command, Control, and Communications (NC3) Systems Engineer to the Joint Staff and Executive Leadership. It also provides NC3 expertise to the Department of Defense (DoD) Chief Information Officer (CIO) National Leadership Command Capability (NLCC) Management Office. Systems Analysis supports long range planning and vulnerability assessments to ensure the NC3 System is adequate under all conditions of stress or war and recommends investment strategies to evolve the Nuclear Command and Control System to achieve desired capabilities. Operational Assessments of fielded systems and weapon platforms provide the sole means for verification of NC3 systems' performance in support of plans and procedures, operation orders, training, equipment, and end-to-end system configuration. Assessments provide strategic and theater level C3 interfaces into the NC3 System. Supporting efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense and strategic and theater forces. Systems Engineering provides the Senior Leadership C3 System with technical and management advice, planning and engineering support, and Test & Evaluation. Leading Edge Command, Control, Communications, Computers, and Intelligence technology is assessed for all communication platforms supporting executive travelers and senior leaders to include the interoperability of hardware and operational procedures. These technology elements support the President's and other DoD command centers and aircraft (e.g., Air Force One and the National Airborne Operations Center).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Systems Engineering, Analysis and Architecture	12.316	10.374	12.098
FY 2018 Plans: Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development.			
The decrease of +\$1.942 from FY 2017 to FY 2018 is due to reduced number of technical assessments required, expansion of the production of architectural artifacts required to complete the NLCC Technical Architecture; development of a NLCC Modeling and Simulation (M&S) capability; support engineering and implementation of the NLCC enterprise mobility infrastructure. Part of the overall increase (-\$0.297) is attributed to the Service Requirements Review Board (SSRB) contract reduction.  FY 2019 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2019 Det	fense Information Systems Agency	Date: February 2018
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303131K / Minimum Essential	Project (Number/Name) T70 / Strategic C3 Support
040077	Emergency Communications Network (MEECN)	1707 Strategic GS Support

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development.			
FY 2018 to FY 2019 Increase/Decrease Statement: The increase of +\$1.724 in FY 2019 will fund Polo Hat theater and Paul Revere operational assessments of the National Leadership Command Capabilities (NLCC). Additional information is classified and provided under separate cover.			
Accomplishments/Planned Programs Subtotals	12.316	10.374	12.098

### C. Other Program Funding Summary (\$ in Millions)

			FY 2019	FY 2019	FY 2019					Cost To	
<u>Line Item</u>	FY 2017	FY 2018	<b>Base</b>	OCO	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	Complete	<b>Total Cost</b>
• O&M, PE 0303131K: O&M	20.337	26.029	24.630	-	24.630	25.114	25.627	26.093	26.742	Continuing	Continuing

### Remarks

### D. Acquisition Strategy

Full and open competition resulted in contract vehicles with Raytheon, Arlington, VA; Science Applications Int'l Corporation (SAIC), McLean, VA; and Pragmatics, Mclean, VA.

#### **E. Performance Metrics**

Performance is measured by compliance with contract deliverables schedules for specifically included products, such as: operational assessment plans, operational assessment reports; recommended revisions to the Joint Staff's Emergency Action Procedures (EAP-CJCS) Volumes VI and VII; updates to NC3 System Description documents and Nuclear C3 Architecture Diagrams. In addition, performance of the NC3 System is directly measured by the operational assessments funded by this program element. These periodic assessments evaluate the connectivity used for the five functions of Nuclear command and control: Situation Monitoring, Planning, Decision Making, Force Execution, and Force Management. Performance of the SLC3S-Airborne fleet is measured by the technical assessment results documented in the assessment reports. Assessment results are used by the Joint Staff and the DoD CIO to direct changes in system engineering and integration, programmatic execution, and training.

Specific performance metrics include the following:

Provide engineering products in all task areas that satisfy DoD/CIO and Joint Staff needs within allocated resources 90% of the time.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense	se Information Systems Agency	Date: February 2018
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303131K / Minimum Essential Emergency Communications Network (MEECN)	Project (Number/Name) T70 / Strategic C3 Support
Conduct assessments of the NC3 system and the SLC3S that to these capabilities 90% of the time.	t provide actionable results and recommendations for the Join	nt Staff and DoD/CIO to pursue improvements
MEECN achieved all its FY 2017 performance metrics and is allocated resources 90% of the time.	on track to achieve the FY 2018 and FY 2019 targets of provi	isioning the Joint Staff requirements within the

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Information Systems Agency

Appropriation/Budget Activity

0400 / 7

R-1 Program Element (Number/Name)
PE 0303131K / Minimum Essential
Emergency Communications Network
(MEECN)

Project (Number/Name)
T70 / Strategic C3 Support

Support (\$ in Million	s)			FY 2	2017	FY 2	2018		2019 ase		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Systems Engineering 1	C/CPAF	SAIC : McLean, VA	20.060	1.639	Aug 2017	-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering 2	C/CPAF	Raytheon Company : Arlington, VA	35.600	-		-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering 3	C/CPFF	Pragmatics : McLean, VA	10.080	-		-		-		-		-	Continuing	Continuing	10.080
Systems Engineering 4	C/FP	Raytheon Company : Arlington, VA	9.311	9.736	Feb 2017	5.200	Feb 2018	6.050	Feb 2019	-		6.050	Continuing	Continuing	Continuing
Systems Engineering 5	C/CPFF	BAH : Falls Church, VA	4.273	-		-		-		-		-	Continuing	Continuing	4.273
Systems Engineering 6	C/CPFF	Harris Corporation : Melbourne, FL	2.500	-		-		-		-		-	Continuing	Continuing	2.500
Systems Engineering 7	C/CPAF	Carson Engineering : Bethesda, MD	1.056	-		-		-		-		-	Continuing	Continuing	Continuing
System Engineering 8	C/FFP	MITRE Corp : McLean, VA	-	0.941	Oct 2016	1.332	Oct 2017	1.000	Oct 2018	-		1.000	Continuing	Continuing	Continuing
System Engineering 9	C/FFP	JHU APL : Laurel, MD	-	-		2.500	Apr 2018	1.000	Apr 2019	-		1.000	Continuing	Continuing	-
System Engineering 10	C/FFP	TBD - New Contract : TBD	-	-		1.342	Aug 2018	-		-		-	Continuing	Continuing	-
System Engineering	C/CPFF	Jacob FNS : Arlington, Va	-	-		-		4.048	Oct 2018	-		4.048	Continuing	Continuing	-
		Subtotal	82.880	12.316		10.374		12.098		-		12.098	Continuing	Continuing	N/A
															Target

	Prior Years	FY 2017		FY 2018		FY 2 Ba	FY 2	FY 2019 Total	Cost To	Total Cost	Target Value of Contract	П
Project Cost Totals	82.880	12.316		10.374		12.098	-	12.098	Continuing	Continuing	N/A	

Remarks

xhibit R-4, RDT&E Schedule Profile: PB 2019	Defens	e Inf	forma	tion S	Syste	ems	Agen	су												Date	: Fe	ebrua	ary :	2018				
opropriation/Budget Activity -00 / 7							R-1 Program Element (Number/Name) PE 0303131K I Minimum Essential Emergency Communications Network (MEECN)											) Project (Number/Name) T70 / Strategic C3 Support										
	F`	Y 20	)17		FY 2	2018	3		FY 2019	)		FY 2	2020			FY 2	2021	1		FY 2	2022			FY 2	023			
	1	2	3 4	1	2	3	4	1	2 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)				<u> </u>		l						'								'					,			
NLCC Program Tracking Report																												
Systems Analysis Documents																												
Systems Analysis Documents																												
NLCC Reference Architecture (formally known as NC3 Reference Architecture																												
NLCC Reference Architecture																												
Operational Assessments																												
Operational Assessments																												
NLCC Portfolio Roadmap																												
NLCC Portfolio Roadmap																												
NLCC System Engineering and Integration																												
NLCC System Engineering and Integration																												
NLCC Target Architecture																												
NLCC Target Architecture																												

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Defense Information System	ms Agency		Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 7	PE 0303131K I Minimum Essential	T70 / Strat	egic C3 Support
	Emergency Communications Network		
	(MEECN)		

# Schedule Details

	Sta	art	End				
Events by Sub Project	Quarter	Year	Quarter	Year			
NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)							
NLCC Program Tracking Report	1	2017	3	2023			
Systems Analysis Documents							
Systems Analysis Documents	1	2017	4	2023			
NLCC Reference Architecture (formally known as NC3 Reference Architecture							
NLCC Reference Architecture	1	2017	4	2023			
Operational Assessments							
Operational Assessments	1	2017	4	2023			
NLCC Portfolio Roadmap							
NLCC Portfolio Roadmap	1	2017	1	2023			
NLCC System Engineering and Integration							
NLCC System Engineering and Integration	1	2017	1	2023			
NLCC Target Architecture							
NLCC Target Architecture	4	2017	3	2023			